

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

I. STATUS OF THE CLAIMS

None of the claims are amended herein.

Claims 3-5 and 9-11 are objected to.

In view of the above, it is respectfully submitted that claims 1-11 are currently pending and under consideration.

II. REJECTION OF CLAIMS 1, 2, AND 6-8 UNDER 35 U.S.C. § 102(B) AS BEING CLEARLY ANTICIPATED BY (JP156170)

The present invention as recited in claim 1 relates to "a heater lamp control...comprising: an AC voltage phase detection unit to detect a phase of the inputted AC voltage when a magnitude of the inputted AC voltage is over a predetermined level; a pulse signal generation unit to generate a heater lamp control pulse signal based on a result of the detection; and a control unit to control a drive-timing of the heater lamp based on the generated heater lamp control pulse signal."

JP156170 discloses an image forming device and power controlling method but fails to teach or suggest any of the features recited in claim 1 of the present invention.

In the "Response to Arguments" on page 2 of the Office Action, the Examiner asserts, "the control system does not supply power from a particular phase when that particular phase is detected..."

Yet, the present invention teaches that a power supply generates various voltages and supplies a voltage to a fixing unit circuit. The claimed invention clearly recites that the control unit controls a drive-timing of the heater lamp based on the generated heater lamp control pulse signal, not that it supplies power from a particular phase when that particular phase is detected as suggested by the Examiner.

The Examiner's attention is directed to paragraphs 18-21 of the Applicant's specification. According to the present invention, the pulse signal generation unit compares magnitudes of the generated pulse delay signal and the inputted pulse reference signal, and thereafter, generates a heater lamp control pulse signal based on a difference of the magnitudes. The generated heater lamp control pulse signal is outputted to the control unit. The control unit controls a fixing unit circuit to be switched on and off according to pulses in the heater lamp control pulse signal

so that a voltage supplied from a power supply unit is applied to the heater lamp. Thus, the present invention teaches "an AC voltage phase detection unit to detect a phase of the inputted AC voltage when a magnitude of the inputted AC voltage is over a predetermined level; a pulse signal generation unit to generate a heater lamp control pulse signal based on a result of the detection; and a control unit to control a drive-timing of the heater lamp based on the generated heater lamp control pulse signal" (see claim 1). This feature is neither taught nor suggested by JP156170.

The Examiner is reminded that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP § 2131. None of the features recited in claim 1 of the present invention are expressly or inherently described in JP156170.

Further, it is noted that JP156170 appears to solve the problems that arise from the power supply of one area being unable to be controlled by another area due to the different voltages in each area (e.g., Europe employs 220 A.C., whereas Japan employs 100V D.C.). However, the present application minimizes a flickering as well as the amount of electricity the heater lamp consumes by applying only predetermined high voltages to the heater lamp.

The detecting unit of JP156170 detects the phase of the inputted AC voltage when the magnitude of the inputted AC voltage is less than a predetermined level, whereas the claimed AC voltage phase detection unit of the present invention detects the phase of the inputted AC voltage when the magnitude of the inputted AC voltage is over a predetermined level (see claim 1). The determination unit of JP156170 integrates voltages inputted during a predetermined time based on the phase where zero crossings occur to determine whether the inputted AC signal is 100V or 200V. Accordingly, the determination unit of JP156170 does not correspond to a pulse signal generation unit for generating a heater lamp control pulse signal based on a result of the detection (that is, when the magnitude of the inputted signal is over a predetermined level) or a control unit for controlling a drive-timing of the heater lamp based on the generated heater lamp control pulse signal (see claim 1). Therefore, JP156170 does not disclose any features recited in claim 1 of the present invention.

Similar to claim 1, claim 7 recites, "a heater lamp control method...comprising: detecting a phase of the inputted AC voltage when a magnitude of the inputted AC voltage is over a predetermined level; generating a heater lamp control pulse signal based on a result of the detection; and controlling a drive- timing of the heater lamp based on the generated heater lamp control pulse signal." Accordingly, JP156170 does not disclose the features as recited in claim 7.

Dependent claims 2 and 6 (depending from claim 1) and dependent claim 8 (depending from claim 7) recite patentably distinguishing features of their own, and further, are at least patentably distinguishing due to their dependencies from independent claims 1 and 7.

In view of the above, it is respectfully submitted that the rejection is overcome.

III. CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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